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<b>(21) International Application Number:</b> PCT/US94/07652 <b>(22) International Filing Date:</b> 7 July 1994 (07.07.94)  <b>(30) Priority Data:</b> 08/190,868 1 February 1994 (01.02.94) US  <b>(60) Parent Application or Grant</b> <b>(63) Related by Continuation</b> US 08/190,868 (CIP) Filed on 1 February 1994 (01.02.94)  <b>(71)(72) Applicant and Inventor:</b> PANATTONI, Michael, L. [US/US]; 261 9th Avenue, Santa Cruz, CA 95062 (US).  <b>(74) Agent:</b> HALL, Jeffrey, A.; 212 Clinton Street, Santa Cruz, CA 95062 (US).		<b>(81) Designated States:</b> AU, BR, CA, DE, GB, JP, NZ, US, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).  <b>Published</b> <i>With international search report.</i>
<b>(54) Title:</b> OSTOMY BELT  <b>(57) Abstract</b> <p>An ostomy belt (10) adapted to support a colostomy pouch (12) comprises a body band (24) of flexible material and includes an opening (20) spaced from the ends and adapted to be positioned over an opening in the patient. A plurality of back support straps (22) may be secured on the body band (14) intermediate the opposite ends of the body band and a pocket (24) is included in the band adjacent to the opening. A pair of stretchable support straps (32) and a ring or wafer shaped element (26) may be provided for securing the colostomy pouch (12) within the pocket (24). The pocket preferably includes a flap (36) extending therefrom and is positioned adjacent to the opening and being releasably secured to the band (24) in overlying relation to the pouch (12).</p>		

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## Description

### OSTOMY BELT

#### Technical Field

5 This invention relates to surgical belts, and more particularly to colostomy, ileostomy, and urostomy belts.

#### Background Art

10 Numerous belts have been proposed and implemented for surgical and therapeutic applications. Common examples are ileostomy, urostomy and colostomy belts. Typically, such belts are worn on the waist or stomach of the user and support colostomy bags, pouches, or the like on the abdomen of a patient. A significant limitation of all such prior belts is that they are bulky, difficult to empty and replace the bags, unsightly and cumbersome - resulting in embarrassment and resultant limitation of actions by the user, and completely unusable in more active applications such as water skiing, snow skiing, moto-cross riding, bicycle riding, and the like.

15 Various improvements and modification of such belts have been proposed where the colostomy bags and pouches have been adapted to be replaced or interchanged both within and outside of the belt. For example, U.S. Pat. No. 2,788,785 issued to Present shows a colostomy belt where a colostomy bag is held within a zippered pouch on the outer surface of the belt. Such prior belts suffer significant limitations in that, 20 heretofore, no belts permit easy use of replaceable bags which are simple to attach onto or remove from the belt, and which are stable and extremely strong allowing the user to pursue active and vigorous activities. Because of this, current surgical belts, especially colostomy, ileostomy, and urostomy belts, are limited in use and adaptability.

25 Accordingly, it is the primary object of this invention to provide a ostomy belt for holding replaceable ostomy bags which is extremely strong, reliable, attractive, and easy to replace bags in, and which may be provided as a new belt or as a retro-fit of existing ones.

30 Additional objects and advantages of the invention will be set forth in the description which follows, and in part will be obvious from the description, or may be learned by practice of the invention. The objects and advantages of the invention may be realized and obtained by means of the instrumentalities and combinations pointed out in the appended claims.

### **Disclosure of the Invention**

To achieve the foregoing objects, and in accordance with the purposes of the invention as embodied and broadly described herein, an ostomy belt adapted to support a colostomy pouch within the ostomy belt is provided, comprising: a body band of flexible material having opposite ends and means on said opposite ends for releasably securing said ends together; said band having an opening spaced from the ends thereof and adapted to be positioned over an opening in the patient; and, a pocket adjacent to said opening adapted to secure and receive a colostomy bag therein and including means for securing the colostomy bag within said pocket; the colostomy pouch being composed of flexible non-porous material and having a mouth portion for positioning in the band opening, and the pocket including a flap extending from the pocket opening and being releasably secured to the band in overlying relation to the pouch.

The means for securing said colostomy pouch within said pocket may include a ring or wafer shaped element having fastening means thereon for attachment to the bag and to the pair of stretchable support straps. The fastening means may be clips, rings, grooves, snaps, or the like. Alternatively, the colostomy pouch may be secured in the pocket by the flap secured to the band by mating elements of hook and loop fastening material, a zipper, or other fastening means.

In accordance with the present invention there is also provided a surgical belt adapted to support an ostomy pouch therein in a horizontal orientation, comprising: a band of flexible material being united at opposite ends thereof; said band having an opening spaced from the ends thereof and adapted to be positioned over an opening in the patient; pocket means adjacent to said opening adapted to secure and receive said ostomy pouch therein including means for securing the ostomy bag within said pocket in a horizontal orientation; and, the ostomy pouch being composed of flexible non-porous material having a mouth portion for positioning in the band opening, and the pocket including a flap extending from the belt and being releasably secured to the band in overlying relation to the pouch.

### **Brief Description of the Drawings**

The accompanying drawings, which are incorporated in and constitute a part of the specification, illustrate a preferred embodiment of the invention and, together with a general description given above and the detailed description of the preferred embodiments given below, serve to explain the principles of the invention.

Fig. 1 shows a perspective view of an ostomy belt, according to the invention.

Fig. 2 shows a view of a pouch strap clip, according to the invention.

Fig. 3 shows an exploded view of the pocket of such belt, according to the invention.

Fig. 4 shows a sectional view through the pocket of such belt, according to the invention.

5 Fig. 5 shows another embodiment of an ostomy belt, according to the invention.

Fig. 6 shows an exploded view of the pocket of such belt having a zipper for closure, according to the invention.

### **Best Mode for Carrying Out the Invention**

10 Reference will now be made in detail to the present preferred embodiments of the invention as illustrated in the accompanying drawings.

In accordance with the present invention, there is provided an ostomy belt adapted to support a colostomy pouch within the ostomy belt, comprising: a body band of flexible material having opposite ends and means on said opposite ends for releasably securing said ends together; said band having an opening spaced from the ends thereof and adapted to be positioned over an opening in the patient; and a pocket adjacent to  
15 said opening adapted to secure and receive said colostomy pouch therein and including means for securing the colostomy pouch within said pocket; the colostomy pouch being composed of a flexible non-porous material having a mouth portion for positioning in the band opening; and the pocket including a flap extending from the band and  
20 releasably secured to the band in overlying relation to the pouch.

There is also provided, in accordance with the invention, a surgical belt adapted to support an ostomy pouch in a horizontal position within the belt, comprising: a band of flexible material being united at opposite ends thereof; said band having an opening spaced from the ends thereof and adapted to be positioned over an opening in the  
25 patient; and pocket means adjacent to said opening adapted to secure and receive an ostomy bag therein and including means for securing the ostomy bag within said pocket in a horizontal orientation; and the ostomy pouch being composed of flexible non-porous material having a mouth portion for positioning in the band opening; said pocket including a flap extending from the band and releasably secured to the band in overlying  
30 relation to the pouch.

In Fig. 1 the ostomy belt 10 adapted to support an ostomy pouch 12 is shown, according to a preferred embodiment of the invention. Belt 10 comprises a body band

14 of flexible material united at opposite ends so that the belt is a unitary, slip-on belt. Band 14 is preferably composed of neoprene having an inner nylon cover, however, alternative materials such as lycra, cotton, urethane, plastic or the like may be used. Band 14 includes opening 20 spaced from ends 16 and adapted to be positioned over an abdominal or other opening in the patient. A pocket space 24 with flap 36 positions the ostomy pouch 12 within belt 10, preferably in a horizontal orientation. Flap 36 is secured to band 14 by mating hook and loop fastening material, or a zipper 42, or other releasably securing fastening means may be used.

In Fig. 5, the ostomy belt 10 adapted to support an ostomy or colostomy pouch 12 is shown, according to another preferred embodiment of the invention. Belt 10, in this embodiment, comprises a body band 14 of flexible material having opposite ends 16 and means on the opposite ends for releasably securing the ends together. Band 14 is preferably composed of neoprene having an inner nylon cover, however, alternative materials such as cotton, urethane, plastics, or the like may be utilized, depending upon the application, be it sport, casual, or formal wear. The preferred means for releasably securing the opposite ends 16 together comprise strips of hook and loop fastening material 18 correspondingly aligned at both ends of the belt. Alternatively, snaps, buckles, buttons, rings or the like may be substituted for hook and loop fastening material 18, or belt 10 may be provided as a pull-over type belt without such fastening means.

Band 14 is provided with opening 20 as shown in Figs. 1 and 5 spaced from ends 16 and adapted to be positioned over an abdominal or other opening in the patient. One or more back support straps 22 may be secured to band 14 by stitches, hook and loop fastening material, adhesive, or the like, and are preferably secured intermediate the opposite ends of band 14. A pocket space 24, best seen in Figs. 1, 3, and 4 is positioned adjacent opening 20 formed by cover flap 36 and band 14, and is adapted to receive colostomy pouch 12 therein. Means for securing colostomy pouch 12 within band 14 can be provided by pouch strap clip or ring 26, which may be shaped as a ring, wafer, or other geometric configuration, and shown in Fig. 3, preferably having clip retainers 28 and 30 spaced thereon. Clip retainers 28 and 30 on pouch strap clip 26 are clipped onto colostomy pouch 12 and to a pair of stretchable support straps 32 with clips 34 which is preferably sewn into pocket 24 on band 14. Of course, support straps 32 may be secured in pocket 24 by other means, such as, adhesives, rivets, or the like. Pouch strap clip or ring 26 and support straps 32 are used to support and secure colostomy pouch 12 in pocket 24 in a horizontal position, however, if desired, a vertical, or other orientation of pouch 12 in pocket 24 is possible. Or alternatively,

ostomy or colostomy pouch 12 may be secured within pocket space 24 without the ring or straps, and held in place by flap 36 as seen in Figs. 1, and 3, allowing pouch 12 to be secured entirely within band 14 in a horizontal orientation.

As shown in Fig. 3, pocket 24 is preferably provided with flap 36 hingedly connected to band 14 with mating pieces of hook and loop fastening elements 38 allowing for ease of inspection, insertion, or removal of pouch 12 from pocket 24. Alternatively, in Fig. 6, flap 36 is seen secured to band 14 by a zipper 40. Flap 36 may be sewn by stitch 42, glued, or otherwise attached to band 14. If straps 32 are utilized, the tension of straps 32 may be adjusted according to the intended use of belt 10. For example, in a sports belt version, the tension of straps 32 would be high, while in a casual wear type belt, the tension of straps 32 would be lessened. Straps 32 are preferably composed of elastic, however, other durable resilient material may be used such as plastic, urethane, neoprene, or the like.

In operation and use ostomy belt 10 is useful for ileostomy, urostomy, and colostomy applications, and is extremely durable, convenient, and easy to use. In the unitary belt of Fig. 1 or the open belt shown in Fig. 5, the present invention allows the patient to enjoy an active, normal range of activities, and to participate in vigorous sport activities if desired. Belt 10 may be worn with casual clothing, sportswear, swim suits, or formal clothing. Since belt 10 is worn and appears similar to an attractive belt the user is not self-conscious or hesitant to use it in a wide range of activities.

Additional advantages and modifications will readily occur to those skilled in the art. This invention in its broader aspects is, therefore, not limited to the specific details, representative apparatus and illustrative examples shown and described. Accordingly, departures may be made from such details without departing from the spirit or scope of the applicant's general inventive concept.

**Claims**

1. An ostomy belt adapted to support a colostomy pouch within the ostomy belt, comprising:
  - 5 a body band of flexible material having opposite ends and means on said opposite ends for releasably securing said ends together; said band having an opening spaced from the ends thereof and adapted to be positioned over an opening in the patient; and
  - 10 a pocket adjacent to said opening adapted to secure and receive a colostomy bag therein and said pocket being positioned within said band of flexible material; the colostomy pouch being composed of a flexible non-porous material having a mouth portion for positioning in the band opening; the pocket including a flap extending from the band and being releasably secured to the band in overlying relation to the pouch.
- 15 2. An ostomy belt as claimed in claim 1 further including a pair of stretchable support straps operably positioned on said body band and including separable fastening means adapted to be secured to said colostomy pouch, thereby securing said colostomy bag within said pocket.
- 20 3. An ostomy belt as claimed in claim 2 further including a ring shaped element adapted to be secured and received within said pocket and including a plurality of fastening clips spaced thereon for attachment to said pair of stretchable support straps.
4. An ostomy belt as claimed in claim 1 wherein said body band is composed of neoprene.
5. An ostomy belt as claimed in claim 1 wherein said means on said opposite ends of said body band are mating pieces of hook and loop fastening material.
- 25 6. An ostomy belt as claimed in claim 1 wherein said body band is composed of cotton.
7. An ostomy belt as claimed in claim 1 wherein said stretchable support bands are composed of elastic.
8. An ostomy belt as claimed in claim 1 wherein said colostomy pouch is supported within said ostomy belt in a horizontal position.



9. An ostomy belt as claimed in claim 1 further including a plurality of back support straps secured on said body band intermediate the opposite ends of the body band.

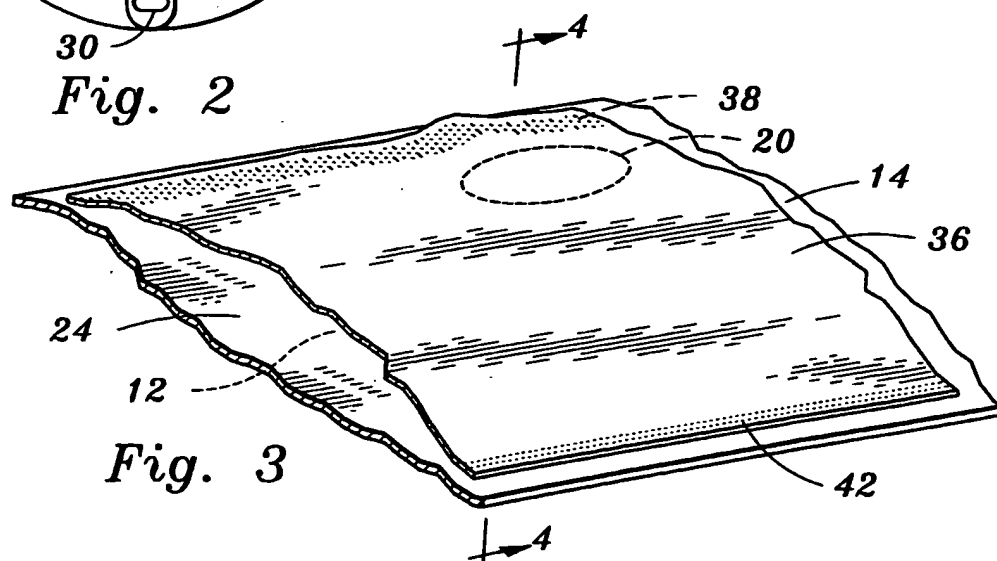
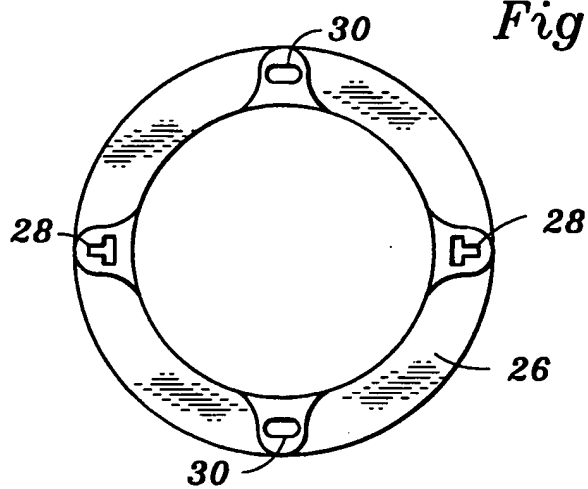
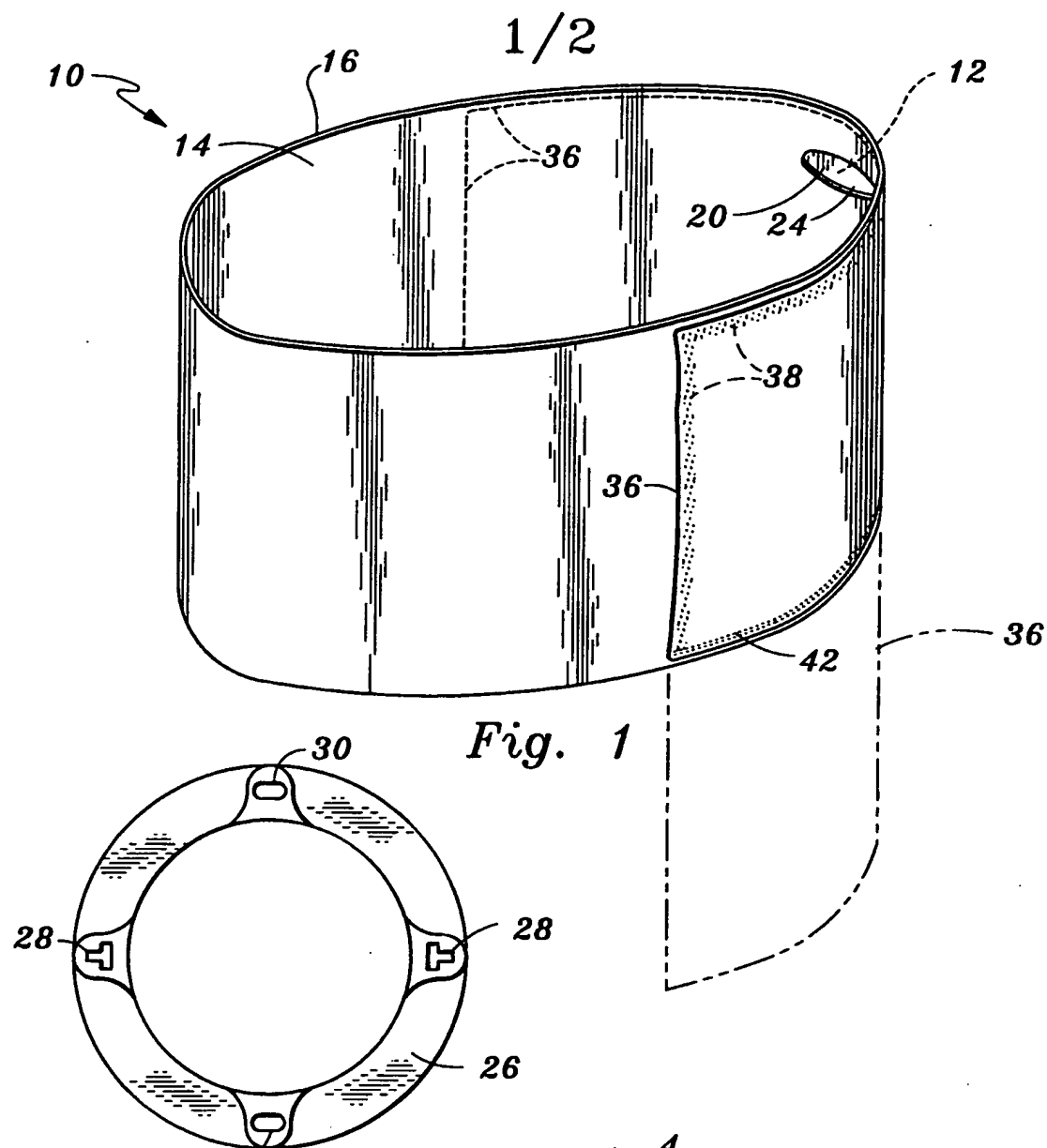
10. A surgical belt adapted to support an ostomy pouch therein in a horizontal orientation, comprising:

5       a band of flexible material being united at opposite ends, said band having an opening spaced from the ends thereof and adapted to be positioned over an opening in the patient; and

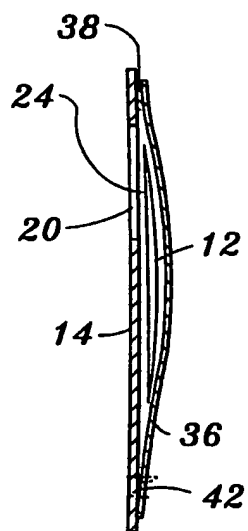
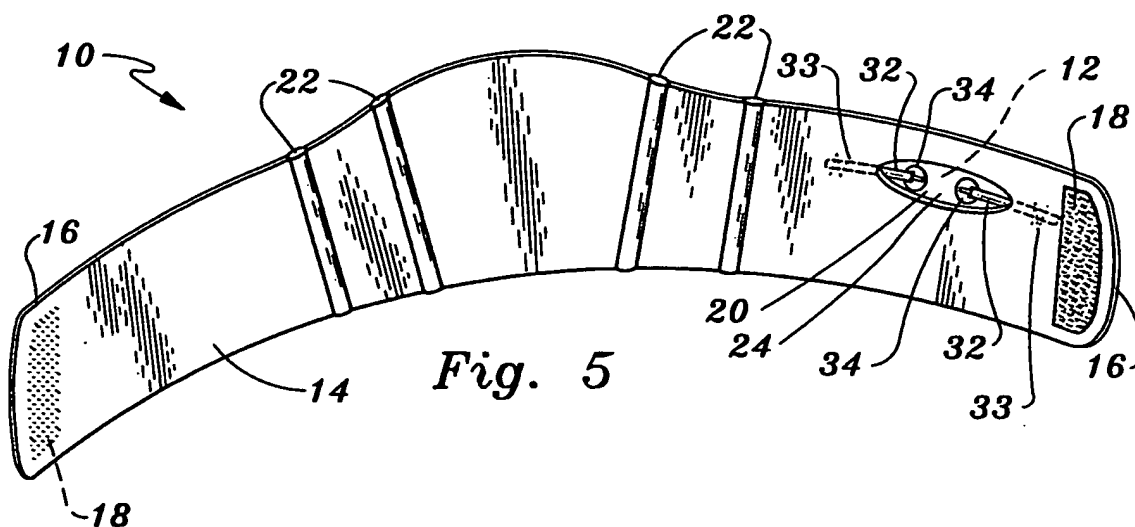
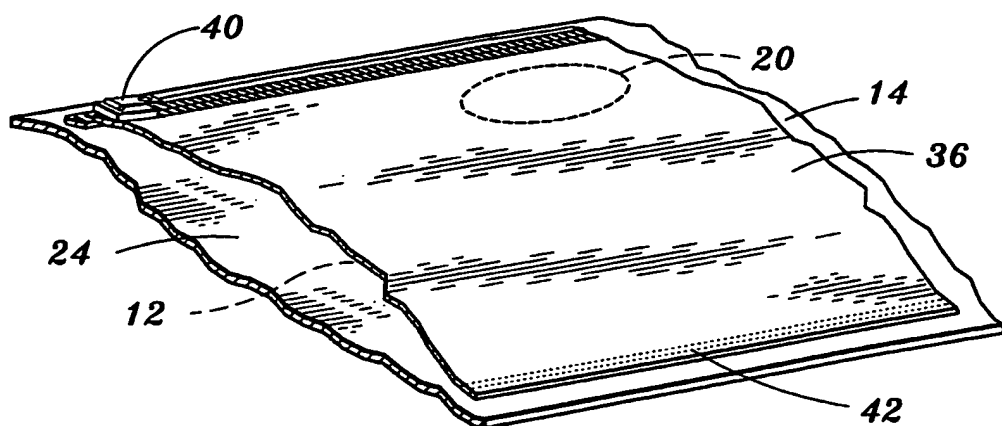
10       pocket means adjacent to said opening adapted to secure and receive said ostomy pouch therein and including means for securing the ostomy bag within said pocket in a horizontal orientation; the ostomy pouch being composed of flexible non-porous material having a mouth portion for positioning in the band opening; said pocket including a flap extending from the band and releasably secured to the band in overlying relation to the pouch.

15       11. The surgical belt of claim 10 wherein said flap extending from said band is secured thereto by mating elements of hook and loop fastening material.

12. The surgical belt of claim 10 wherein said flap extending from said band is secured thereto by a zipper.



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*Fig. 4**Fig. 5**Fig. 6*

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US94/07652

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(5) :A61F 5/44

US CL :604/345

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 604/342-345

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
NONEElectronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
NONE**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	GB, A, 0,711,179, (FRICKER), 23 June 1954. See entire document.	1-12
Y	US, A, 2,688,327, (BERG), 07 September 1954. See Figs. 1-11.	1-6
Y	US, A, 3,773,048, (KIRKLIAUSKAS) 20 November 1973. See column 3 lines 5-10.	4, 6
Y	US, A, 4,326,521, (MARSAN), 27 April 1982. See column 5 lines 1-5	4
Y	US, A, 2,877,768, (J. A. HIGGINS), 17 March 1959. See entire document.	1, 2, 4, 6-9

☐ Further documents are listed in the continuation of Box C.
 ☐ See patent family annex.

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